

# **STATE ROUTE 270 TRANSPORTATION CONCEPT REPORT**



## **CALTRANS DISTRICT 9**

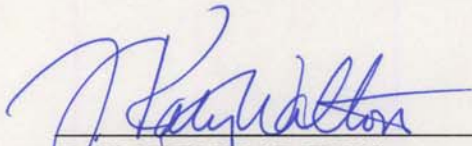
**Office of System Planning  
June 2004**

**STATE ROUTE 270**  
**TRANSPORTATION CONCEPT REPORT**

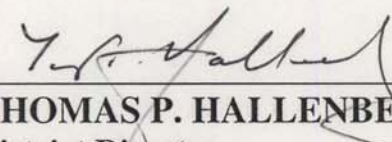
**PREPARED  
BY  
CALIFORNIA DEPARTMENT OF TRANSPORTATION  
DISTRICT 9  
OFFICE OF SYSTEM PLANNING**

**2004**

**APPROVAL:**

  
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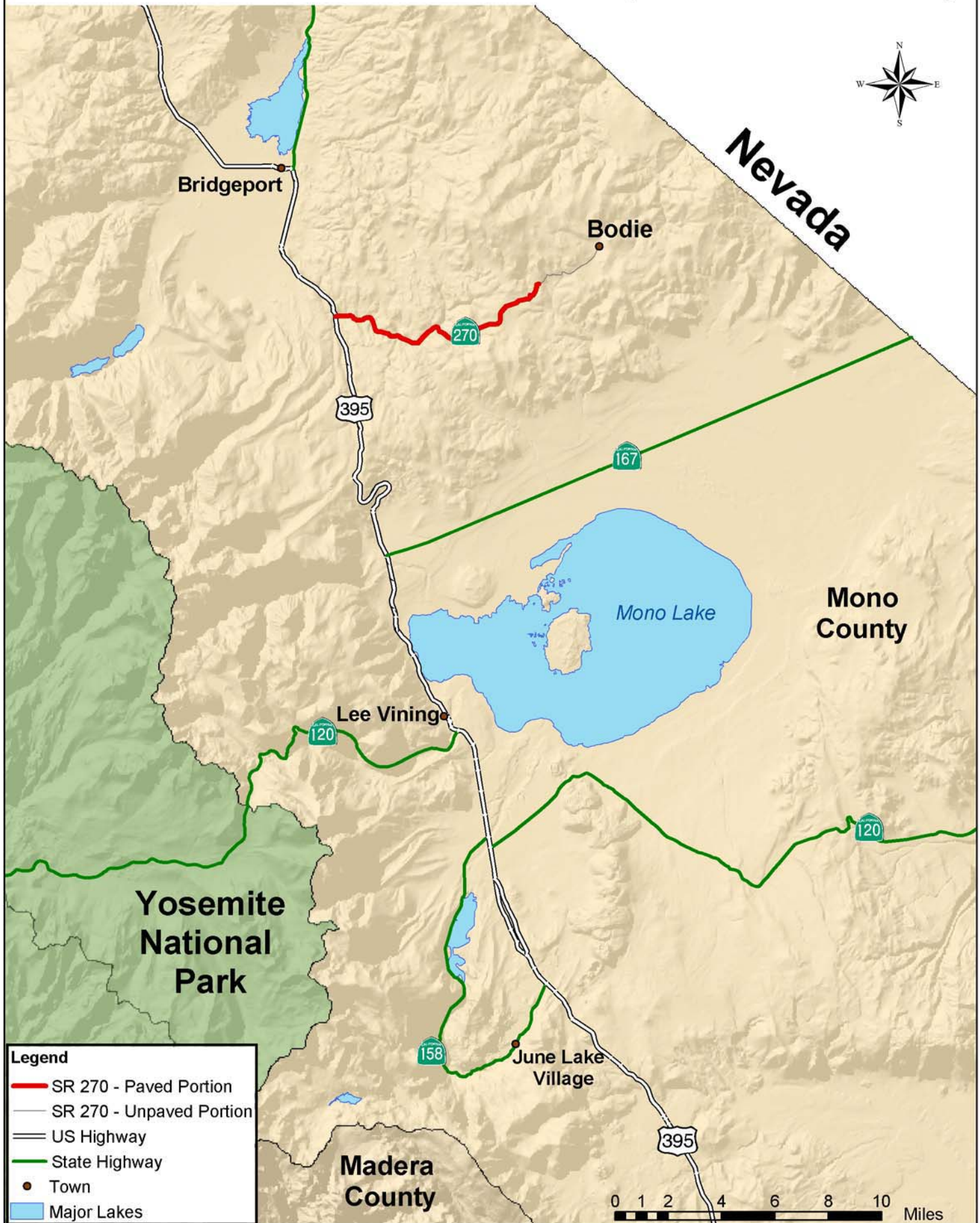
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# **STATE ROUTE 270 TRANSPORTATION CONCEPT REPORT**

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# State Route 270 Corridor Map - Mono County



# **State Route 270 Transportation Concept Report Summary**

## **INTRODUCTION**

The Transportation Concept Report (TCR) is a long-range planning document that describes the current characteristics of the transportation corridor and establishes a twenty-year planning concept. The TCR defines the California Department of Transportation's (Department) goals for the development of transportation corridors in terms of Level of Service (LOS) and type of facilities. The report broadly identifies the improvements needed to reach those goals.

The District 9 Office of System Planning, in consultation with local and regional agencies, has prepared this TCR. Information in this TCR will be updated as conditions change and new information is obtained. Consequently, the nature and the size of proposed projects may change as the projects move through programming, environmental analysis, and design stages.

## **ROUTE SYNOPSIS**

This TCR covers State Route 270 as one segment, at a length of 13.3 miles (21.40 kilometers).

State Route 270 begins at the Junction of US 395 in Mono County at Post Mile (PM) 69.85, Kilometer Post (KP) 112.41. The paved portion of the roadway extends 9.81 miles (15.79 kilometers) east of US 395. The unpaved roadway continues for 3.49 miles (5.62 KP) and ends at PM 13.3 (KP 21.40), thus ending SR 270 at Bodie State Historic Park. Mono County maintains this portion under agreement with the State Department of Parks and Recreation.

## **ROUTE HISTORY**

State Route 270 leads from US 395 to the mining town named after Waterman S. Body, who discovered gold near the townsite in 1859. It has been documented that the spelling of the town's name was changed to Bodie to ensure proper pronunciation. By 1870, the town of Bodie reached its population peak of approximately 12,000, during which high-grade ore mining produced over \$100 million.

By 1890, the high-grade ore decreased and the population of Bodie fell to around 2,000. A disastrous fire that destroyed many homes and buildings damaged the town in 1892.

With the advent of electrical power to run the mill and mining technologies the town was destroyed again by fire in 1932. In 1940, historical interest revived, this time as a tourist attraction. In 1962, the town of Bodie was declared a State Historic Park.

Assembly Bill No. 508 passed during the 1970 session of the Legislature added SR 270 to the State Highway System. At the time of the resolution adoption, this was a 16-foot wide dirt road (Mono County Road S418) between US 395 and Bodie State Historic Park. In 2002, California Assemblyman Tim Leslie challenged the 8<sup>th</sup> graders within his district to write an assembly bill. The proposed bill by the students of Lee Vining Middle School proposed to make Bodie the State's official ghost town. On September 4, 2002, then Governor Gray Davis, approved AB 1757 (Section 429.7), designating Bodie as the official state "gold rush ghost town."

The California Transportation Commission Resolution Highway Route Adoption 78-3, dated August 25, 1978, officially designated 9.81 miles (15.79 KM) Bodie Road as SR 270. On December 1, 1978, as a result of an agreement between Mono County and the Department, the resolution was amended, extending the adopted route by 0.4 mile. The extension resulted in the Route's easterly terminus to be relocated from 9.5 to 9.9 miles (15.3 to 15.9 kilometers) east of US 395, upon the County's completing the required upgrade. The resolution stipulated that Mono County would be responsible for continued maintenance and liability until remedial work had been completed.

In the Fall of 1979, all work was officially completed and the maintenance up to PM 9.81 of the adopted SR 270 came under the jurisdiction of the Department's District 9. Mono County and the State Department of Parks and Recreation entered into an agreement on December 6, 1983 pertaining to the unpaved portion of Bodie Road. State Parks and Recreation wanted this 3.49-mile to remain "dirt" so as to preserve the feeling of isolation and the "ghost town" experience of the Bodie State Historic Park. The agreement states in part that Parks and Recreation shall, at its own cost, maintain, develop, repair, improve, construct, and reconstruct the unpaved section of Bodie Road. Currently, the State Department of Parks and Recreation is maintaining the unpaved portion of Bodie Road within the park boundary. If in the future the unpaved portion (3.49 miles) of the route is brought up to State standards, the Department would take over maintenance.

## **ROUTE DESCRIPTION**

State Route 270 is functionally classified as a Major Collector, which provides access to Bodie State Historic Park, recreational opportunities, and sheep ranching. Elevation ranges from 6,800 to 8,300 feet (2,072 to 2,529 meters). The road is generally closed to automobiles from December through April, as there is no snow removal during this time.

## **PRESENT AND FUTURE OPERATING CONDITIONS**

State Route 270 is designated as a Class II facility, as identified under the year 2000 Highway Capacity Manual and is currently operating at a LOS of A. This is a rural highway that is primarily used for outdoor recreational travel. Future enhancement may include a bicycle lane that will enable cyclists greater accessibility. There is some desire to have phased multiple gate closures for cross-country skiers and other Park visitors. The California Department of Parks and Recreation has expressed interest in improving the unpaved portion bringing it up to state standards. Consideration must be given that part of the unpaved portion is within the Area of Critical Environmental Concern, and Bodie Bowl Withdrawal.

## **EXISTING AND FUTURE DEFICIENCIES**

An issue of concern for SR 270 is a lack of improved shoulders for emergency parking and clear zone recovery. Future roadway rehabilitation could include shoulder widening, turnouts and culvert maintenance for drainage improvements to help prevent runoff.

As resurfacing, restoration, and rehabilitation (3R) projects are programmed; consideration should be given to bring this facility up to the latest 3R standards of 4 ft. (1.22 meters) shoulders and 12 ft. (3.35 meters) travel lanes per the Highway Design Manual. However there is verbiage in the California Transportation Commission adoption specifying that 11 ft. (3.35 meters) lanes and 3 ft. (0.91 meter) shoulders are warranted.

## STATE ROUTE 270 CONCEPT SUMMARY CHART

County	Segment	Post Miles	Post Kilometers	Current Facility	Concept Facility	Ultimate Facility	Current *LOS	10-Yr *LOS	20-Yr *LOS	Concept *LOS	Fact Sheet Page
<b>Mono</b>	<b>1</b>	<b>0.00/9.81</b>	<b>0.00/15.79</b>	<b>2 Lane Conventional</b>	<b>2 Lane Conventional</b>	<b>2 Lane Conventional</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>C</b>	<b>6</b>
<b>Mono</b>	<b>Unpaved</b>	<b>9.81/13.30</b>	<b>15.79/21.40</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>6</b>

\* Level of service (LOS) is a quality measure describing operational conditions within a traffic stream. Generally, LOS is measured in terms of speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. The LOS calculations in this report were based on the 2000 update of the Highway Capacity Manual. Changes in the 2000 Highway Capacity Manual include categorizing two-lane highways into two groups; Class I and Class II facilities.


Class I facilities are two-lane highways in which motorists expect to travel at relatively high speeds. Two-lane highways that are major intercity routes, primary arterials connecting major traffic generators, daily commuter routes, or primary links in state or national highway networks generally are assigned to Class I. LOS calculations for Class I facilities includes the use of both percent time spent following, and average travel speed.

Class II facilities are two-lane highways in which motorists do not necessarily expect to travel at high speeds. Two-lane highways that function as access routes to Class I facilities, serve as scenic or recreational routes that are not primary arterials, or that pass through rugged terrain, generally are assigned to the Class II category. LOS calculations for Class II facilities utilize only percent time spent following.

The Department's District 9 has categorized SR 270 as a Class II facility.

\*\* This portion is maintained by Mono County under agreement with the California Department of Parks and Recreation that extends for 3.49 miles.

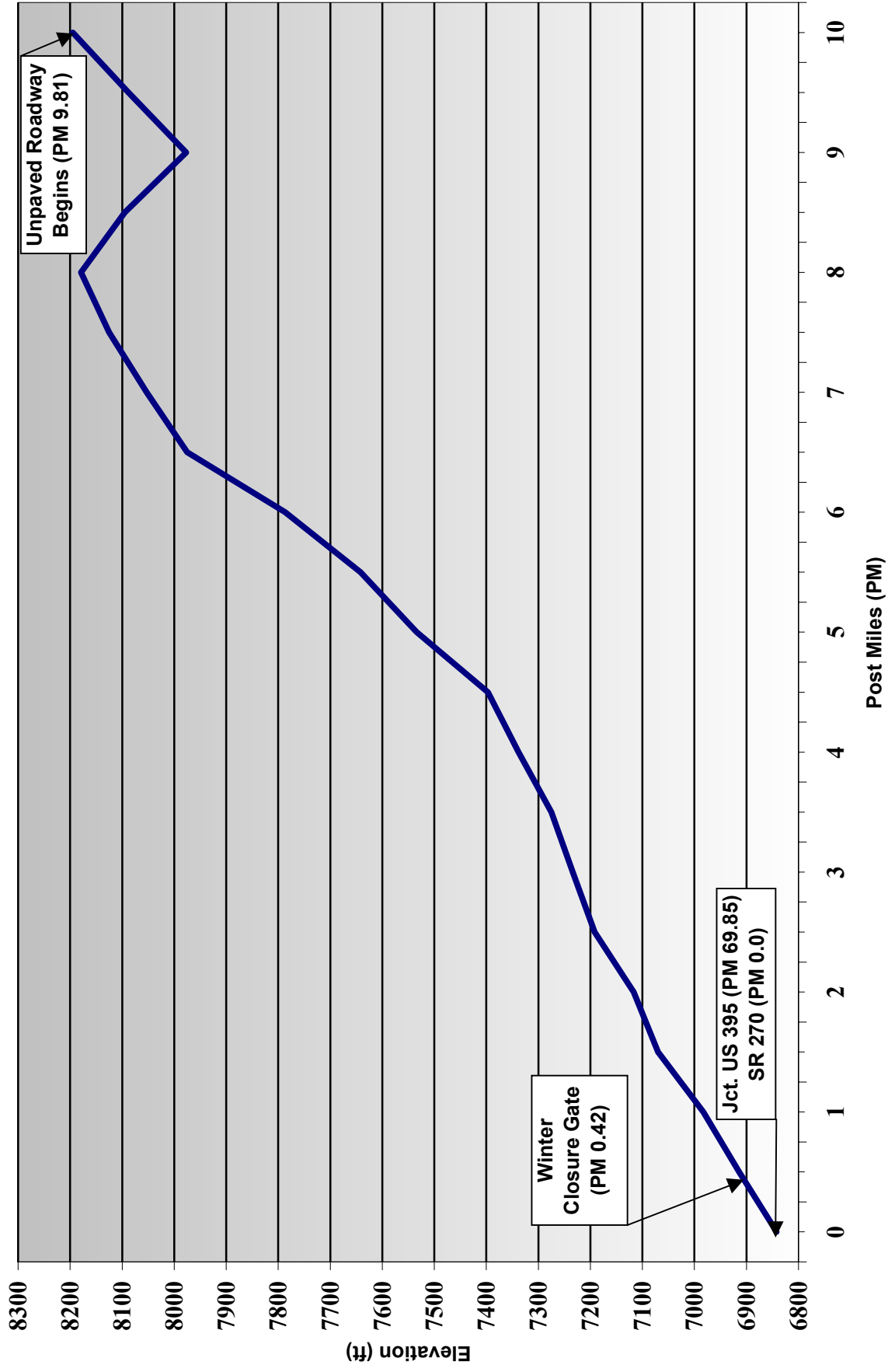
## SR 270 SEGMENT FACT SHEET

<div><div>Length in km15.79</div><div>Length mi:9.81</div><div>KP Back0.00</div><div>Back PM0.00</div><div>KP Ahead15.79</div><div>Ahead PM9.81</div><div>Present FacilityTwo-Lane Conventional</div><div>Present LOSA</div><div>Concept FacilityTwo-Lane Conventional</div><div>Concept LOSC</div><div>Ultimate FacilityTwo-Lane Conventional</div></div>	<div><div>Segment Location</div><div>Junction SR 270/U.S. 395 to SR 270/END OF PAVEMENT</div><div></div></div>
<div><div>Segment Description</div><div><p>This segment is a two-lane conventional highway from the Junction of US 395, extending eastbound for 9.81 miles (15.79 kilometers) along winding mountainous terrain varying in elevation from 6,800 feet (2,073 meters) to 8,300 feet (2,529 meters). The beginning of the route features many steep canyon walls. Present roadway conditions include severe cross section deterioration and alligator cracking.</p><p>The remainder of SR 270 is maintained by Mono County under agreement with the California Department of Parks and Recreation, extends for 3.49 miles (5.62 kilometers) of unpaved roadway.</p><p>The entire route is primarily used for access to hiking, designated areas for off-road vehicles, and the gateway to visiting Bodie Historic State Park.</p></div></div>	
<div><div>Route Concept Improvement Recommendations</div><div><p>Improvements to include shoulder widening to 4.0 feet (1.22 meters) and travel lanes to 12.0 feet (3.35 meters) throughout paved segment length to meet resurfacing, rehabilitation and restoration standards with consideration of existing drainage network.</p><p>Future road widening will also benefit bicycle use where feasible.</p></div></div>	
<div><div>Programmed Projects</div><div>No capacity or operational improvements are programmed for this segment.</div></div>	
<div><div>Highway Network Affiliation</div><div><div>Functional Classification:</div><div>Major Collector</div><div><div>National Hwy System</div><div>No</div><div>Scenic Highway</div><div>No</div><div>California Freeway Expressway System</div><div>No</div><div>National Truck Network</div><div>No</div><div>STRAHNET</div><div>No</div><div>Life Line</div><div>No</div><div>Regionally Significant</div><div>No</div><div>IRRS</div><div>No</div></div></div></div>	<div><div>Highway Information</div><div><div>Units</div><div>Feet</div><div>Meters</div><div><div>Average Median Width</div><div>0</div><div>0</div><div>Average Shoulder Width</div><div>3</div><div>0.9</div><div>Average Lane Width</div><div>11</div><div>3.4</div></div></div></div>

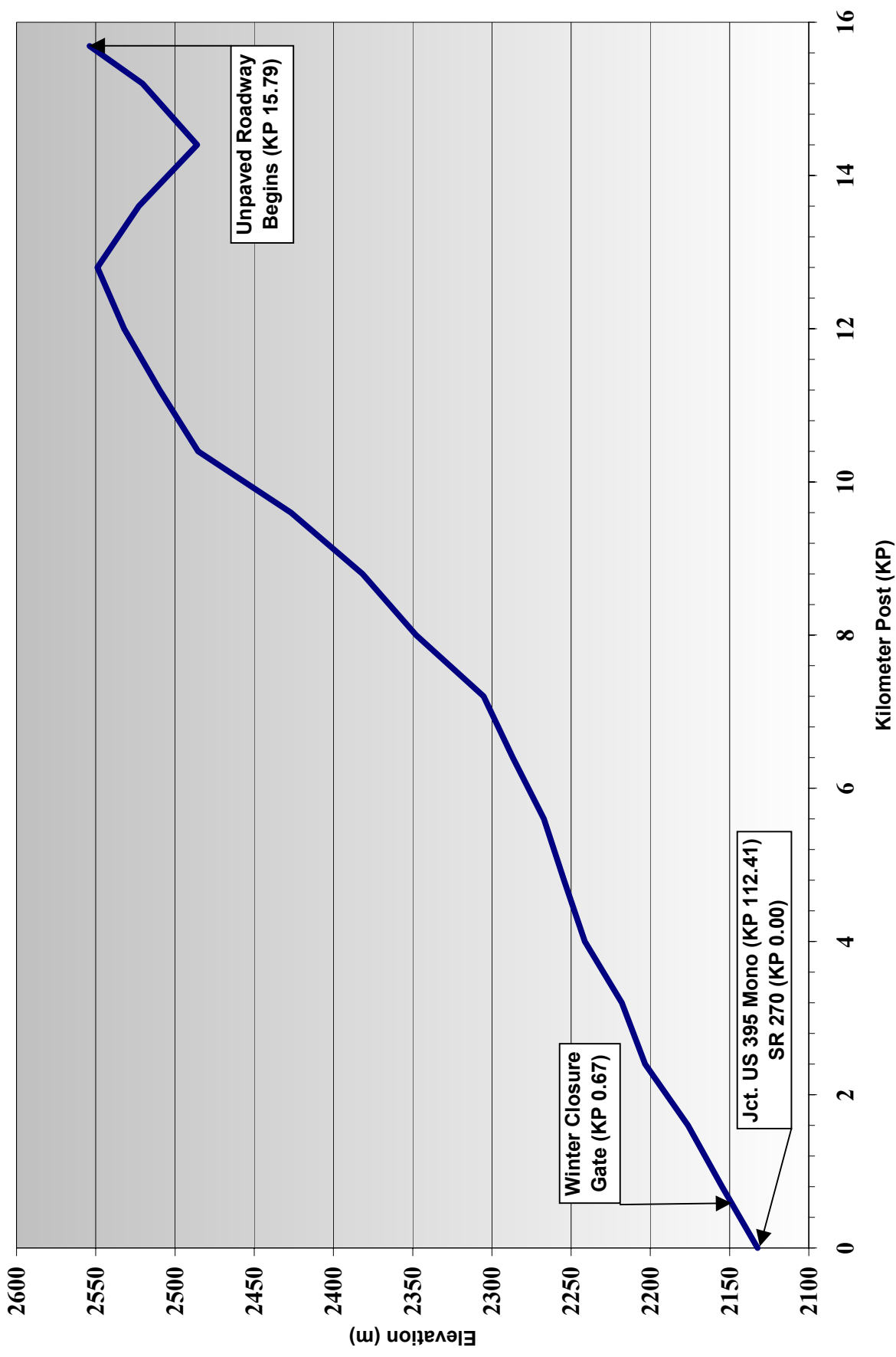
## SR 270 SEGMENT FACT SHEET

<b>RTPA/COG/MPO</b>		<b>Air Quality Comments</b>			
Mono County LTC Scott Burns, Executive Director PO Box 347 Mammoth Lakes, CA 93546		For State of California and National Ambient Air Quality Standards this area is out of conformity for PM10. Probable cause is dust from Mono Lake and wood burning from the Town of Mammoth Lakes. State of California Ambient Air Quality standard is out of conformity for Ozone 1-hour standard. Probable cause is transport from the San Joaquin Valley.			
<b>Transit Service/ Modal Options</b>					
Bicycle travel is allowed. Scheduled transit service is not available at this time; however, tourist bus service is available.					
<b>Land Use</b>					
Land Use for this segment includes open range land, wetlands, and recreational use areas. Land Use Designation is authorized for agriculture, resource management, with scenic considerations. Ownership is by Bureau of Land Management (BLM), Mono County, State of California State Lands Commission, and a few private parcels. A private Recreational Vehicle Park, and a BLM visitor's center are also being considered at this time.					
<b>Environmental Concerns</b>					
Sensitive species of plants that are found along the SR 270 corridor include, but are not limited to: Bodie Hills Draba, Bodie Hills Rock Cress, Masonic Rock Cress, Mono County Phacelia, and Great Basin Onion. The Sage Grouse and the Travertine Band-thigh Diving Beetle are also of concern. Other areas of concern include wetlands, water quality, and archaeological sites. The portion of unpaved road is within the Area of Critical Concern, and Bodie Bowl Withdrawal.					
<b>Traffic Analysis Comments</b>					
According to Table B of the Traffic Accident Surveillance and Analysis System (between 9/1/92 to 8/31/02), the total accident rate (.032) is below the statewide average rate (1.21). Seventy-five percent of primary collision factors were due to failure to maintain control of vehicle and unsafe speed, 17% overturn collisions, and 8% rear end collisions.					
<b>Right of Way Comments</b>					
Right of Way width varies from 60 ft (18.28 meters) to 100 ft (30.48 meters), comprising of easement, fee, and prescriptive use through private property, and the Bureau of Land Management, Mono County, and State of California State Lands Commission.					
<b>Highway Operation Facts</b>					
<b>Traffic Information/Forecasts</b>		<b>Design Hour Volumes</b>		<b>V/C Ratio LOS</b>	
<b>2004 AADT</b>	500	<b>2004 DHV</b>	130	<b>2004 V/C</b>	0.02 A
<b>2014 AADT</b>	552	<b>2014 DHV</b>	144	<b>2014 V/C</b>	0.03 A
<b>2024 AADT</b>	610	<b>2024 DHV</b>	159	<b>2024 V/C</b>	0.04 A
<b>Calculation Factors</b>					
<b>Fatality + Injury Accident Rate</b>	.032	<b>% Traffic Growth (0-10 yrs)</b>	1.0%	<b>Percent Trucks</b>	3.6%
<b>Fatality + Injury Statewide Avg Rate</b>	1.21	<b>% Traffic Growth (10-20 yrs)</b>	.5%	<b>Percent RV's</b>	3.3%
<b>Total Accident Rate</b>	0.64	<b>Directional Split</b>	50/50	<b>Percent Buses</b>	.5%
<b>Total Statewide Avg Rate</b>	2.41	<b>Terrain</b>	Rolling		

# STATE ROUTE 270 Elevation Profile (US Customary Units)



# STATE ROUTE 270 Elevation Profile (Metric Units)



## **GLOSSARY**

<b>Concept Facility</b>	Highway facility type and characteristics considered viable with or without improvements within the 20-year planning period given financial, environmental, planning and engineering factors.
<b>Concept LOS</b>	Highest and best Level of Service that can be achieved in the 20-year planning period based on the concept facility.
<b>Directional split</b>	The percentage of traffic in the peak direction compared to traffic in both directions during the design hour.
<b>Functional Classification</b>	Refers to a process guided by Federal legislation, which groups streets and highways into classes or systems based on the character of the service that is provided (e.g., Principal Arterial, Minor Arterial Roads, Collector Roads and Local Roads).
<b>Interregional Road System</b>	Statewide network of legislatively identified interregional routes, outside urbanized areas, that provides access to, and links between, the State's economic centers, major recreational areas, urban, and rural regions.
<b>Level of Service (LOS)</b>	A qualitative rating of the effectiveness of a transportation system in serving travel. Letters A (best) through F (worst).
<b>National Highway System</b>	Federal-designated system of major highways in each state.
<b>Present Facility</b>	Type and general characteristics of highway at the time of this study.
<b>Present LOS</b>	Existing Level of Service.
<b>Programmed Projects</b>	Capacity-enhancing safety and/or operational improvement projects that could possibly be programmed.
<b>Route Designations</b>	Identifies whether or not the subject segment of a route is designated as being part of the National Highway System (NHS), Interregional Highway System (IRRS), California Freeway/Expressway (F & E) System, Scenic Highway, National Truck Network (NTN), Terminal Access Route for the National Truck Network, Strategic Highway Network (STRAHNET), and Highways of Regional Significance.

## ACRONYMS

<b>AADT</b>	<b>Average Annual Daily Traffic</b>
<b>ADT</b>	<b>Average Daily Traffic</b>
<b>BLM</b>	<b>Bureau of Land Management</b>
<b>DHV</b>	<b>Design Hour Volumes</b>
<b>KP</b>	<b>Kilometer Post</b>
<b>LOS</b>	<b>Level of Service</b>
<b>MNO</b>	<b>Mono</b>
<b>KP</b>	<b>Kilometer Post</b>
<b>PM</b>	<b>Post Mile</b>
<b>RV</b>	<b>Recreational Vehicle</b>
<b>SR</b>	<b>State Route</b>
<b>TCR</b>	<b>Transportation Concept Report</b>
<b>USFS</b>	<b>United States Forest Service</b>
<b>V/C</b>	<b>Volume to Capacity</b>

## SOURCES of INFORMATION

**California Transportation Commission: Memorandum file 09-Mno-270 0.0/9.9  
Dated: December 1, 1978, and April 19, 1978.**

**Transportation Research Board, *Highway Capacity Manual*/Software, 2000**

**Caltrans Route Concept Report, SR 270 - 1985**

***Mono County Regional Transportation Plan* updated 2001**

**Traffic Accident Surveillance and Analysis System, Table B, Accident Data  
(09/01/92) – (08/31/02)**

**“The Bodie Bowl - Area of Critical Environmental Concern, Management Plan”  
-Bureau of Land Management, July 1995**